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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/467,210 Filing Date: December 20, 1999 Appellant(s): KWON ET AL.

Paul J. Farrell For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 5, 2009 appealing from the Office action mailed April 22, 2008.

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#### (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

### (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

#### (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

#### (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

# (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct

#### (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

# (8) Evidence Relied Upon

6,243,596	Kikinis	6-2001
5,005,013	Tsukamoto et al.	4-1991

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6,141,058	Lagoni et al.	10-2000
4,873,712	Porco	10-1989
4,465,902	Zato	8-1984
5,835,578	Reyes et al.	11-1998

## (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (US006243596B1) in view of Tsukamoto et al. (5,005,013), Lagoni et al. (US006141058A), Porco (4,873,712), Zato (4,465,902), and Reyes et al. (US005835578A).

Regarding claim 1, Kikinis discloses a TV phone in which a television and a portable cellular phone are integrally combined (See Fig. 9-12; col. 17 lines 34-41; Kikinis discloses a cellular phone in which a TV tuner and receiver is installed in a battery pack adaptor 100 to allow users to receive and view television programs), the TV phone comprising:

a Mobile Station Radio Frequency Unit (MRFU) (See Figs. 9-12; Kikinis's cellular phone) for demodulating a signal received through a forward channel, forming an audio conversion channel among the received radio-frequency electromagnetic signals to output the demodulated signal, and modulating and transmitting a signal in a reverse channel (Kikinis's cellular phone performs a two-way conversation in which CPU 401 continuously processes both incoming and outgoing audio data. The incoming voice signal is received through a forward channel, demodulated and outputted to the audio

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speaker and the outgoing voice signal (reply back) is modulated from microphone 203 and transmitted out on the reverse channel);

a Mobile Station Processor (MSP) (See Fig. 12, 401) for establishing a phone or TV mode in response to an input command (user selection) (See Figs. 9-12); and a display unit (See Fig. 12, LCD 202).

However, Kikinis does not disclose:

first, second and third call alarm modes;

demodulating a signal indicative of an incoming call;

a TV module for receiving and demodulating a desired TV channel signal among radio-frequency electromagnetic signals received in response to an input of a tuning signal, when the TV module operates by supply of a power supply voltage, to generate a composite video signal, a composite synchronizing signal and a composite audio signal;

a TV control section for supplying the tuning signal corresponding to a channel selection command signal to the TV module, synchronizing On Screen Display (OSD) data corresponding to display control data and display data with the composite synchronizing signal to output the synchronized signal as a video signal;

the MSP generating the channel selection command signal stored in a predetermined memory area by setting the TV mode, and generating an alarm signaling a reception of the incoming call output from the MRFU according to at least one of the first, the second, and the third incoming call alarm modes,

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wherein the first incoming call alarm mode comprises interrupting a power supply voltage supplied to the TV module and automatically switching from the TV mode to the phone mode, the second incoming call alarm mode comprises switching off and on, at a predetermined interval, the audio signal output from the TV module, and the third incoming call alarm mode comprises displaying one of an incoming call character message and a preset graphic message, at a specific region or an entire portion of the TV image viewing screen in accordance with controlling the TV control unit, and processing audio data output from the MRFU to output the processed audio data signal while supplying audio data to the MRFU; and

the display unit synchronizes the composite video signal from the TV module and the video signal from the TV control section with the composite synchronizing signal and displaying the synchronized composite video signal and the video signal on an image viewing screen.

Tsukamoto shows a hand-held device with a TV module for receiving and demodulating a desired TV channel signal among radio-frequency electromagnetic signals received (antenna 2 receives a TV broadcast radio wave and a radio wave generated from a Radio transmission station of telephone office; Col. 3, lines 36-41) in response to an input of a tuning signal, when the TV module operates by supply of a power supply voltage (Col. 4, lines 4-10), to generate a composite video signal, a composite synchronizing signal and a composite audio signal (Col. 4, lines 1.0-21) and a TV control section for supplying the tuning signal corresponding to a channel selection command signal to the TV module, synchronizing On Screen Display (Timing Control

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Circuit 35) data corresponding to display control data and display data with the composite synchronizing signal to output the synchronized signal as a video signal (Fig. 2 & 14; Col. 4, lines 4-64; Col. 10, lines 4-40 and Col. 13, lines 25-62). Furthermore, Tsukamoto discloses a display unit 3 (Fig. 2 and 14) for synchronizing the composite video signal from the TV module and the video signal from the TV control section with the composite synchronizing signal and displaying the synchronized composite video signal and the video signal on an image viewing screen (Col. 14, lines 25-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis's Video driver 402 with the LCD's video circuitry.

Ineretore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis's Video driver 402 with the LCD's video circuitry driver, as taught by Tsukamoto, so to take the advantage of the well known design of the LCD video circuitry driver to drive the LCD to display the received video signal.

Lagoni discloses a television/telephone system (Fig. 1) wherein the telephone network interface 126 detects and demodulates a signal indicative of an incoming call received through a pair of conductors Tip (T) and Ring (R) (Col. 4, lines 4-7 and lines 14-17) and a 3<sup>rd</sup> call alarm mode comprises displaying one of an incoming call character message (displays Caller ID; Col. 4, lines 23-31) and a preset graphic message (see Fig. 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis' s cellular phone system to detect the incoming telephone signal and display an alert message, i.e. Calling ID, as taught by Lagoni, so to notify the user of an incoming call while watching the TV and also to give the user a choice to answer or not to answer the incoming call based on the displayed Caller Id while watching a TV program (Col. 1, lines 17-23).

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Furthermore, the limitation "A Mobile Station Processor (MSP) for establishing a phone or TV mode in respond to an Input command, generating the channel selection command signal stored in a predetermined memory area by setting the TV mode, and generating a reception of incoming call output from the MRFU call according to at least one of a 1<sup>st</sup>, a 2<sup>nd</sup>, and a 3<sup>rd</sup> incoming call alarm modes, wherein the 3<sup>rd</sup> incoming call alarm mode comprises displaying one of an incoming call character message and a preset graphic message, at a specific region or an entire portion of the TV image viewing screen in accordance with controlling the TV control unit, and processing audio data outputted from the MRFU to output the processed audio data signal while supplying audio data to the MRFU", is further met by Lagoni because Lagoni's controller 110 (MSP) establishes a TV mode in response to an input command from the RC 125, generating the channel-related data (channel selection command signal) stored in a predetermined RAM (memory area) (Col. 3, lines 1-3) by setting the switched ON of the Television receiver (TV mode) thereby allowing for viewing of a TV image (if TV receiver is switched ON, i.e., active and able to display a picture (Col. 4, lines 25-28), and upon reception of an incoming call/signal from the telephone network interface 126 (MRFU) (Col. 4, lines 18-32), Controller 110 supplies the display control data via control line 141 to the OSD processor 140 (Col. 3, lines 61-65+) to display an incoming call character message (displays Caller ID; Col. 4, lines 23-31) at a specific region of a TV imageviewing screen (see Fig. 4) according to a Priority List Caller ID (preset incoming call alarm mode), and answering the call (processing audio data outputted from the MRFU

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to output the processed audio data signal while supplying audio data to the MRFU) by switching from TV mode to Phone mode.

Lagoni specifically further discloses that once the call is answered (see Fig. 5 at el. 530 indicates with "Yes" branching that a call is answered; Col. 4, lines 55-Col. 5, lines 18), Lagoni's Telephone Network Interface Unit 126 is getting/getting/continuing/resuming back to its previous state of monitoring a future incoming caller-id message of anew incoming call.

Porco discloses "a 1st call alarm mode" and "wherein the 1st incoming call alarm mode comprises interrupting a power supply voltage supplied to the Audio/Radio module and automatically switching from audio/Radio mode to the phone mode" (Col. 3, lines 44-Col. 5, lines 27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis in view of Tsukamoto and Lagoni with Porco, so to interrupt the associated secondary accessory (e.g. TV) whose concurrent operation would be interfering and distracting during operation of the telephone, as suggested by Porco (Col. 1, lines 1-13).

Zato discloses a television/phone system. Zato discloses a second incoming call alarm mode that switches on the audio signal output from the TV module (See Fig. 1; col. 3 lines 16-40, the system provide an audible tone indicating incoming calls). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by modify Kikinis in view of Tsukamoto and Lagoni to have a second incoming call alarm mode that switches on the audio signal output from the TV module, as taught by Zato, in order ensure that the user

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is aware of an incoming call by notify the user via audible and visual means (See col. 3 lines 41-43).

Reyes et al. (Reyes) discloses a telephone system. Reyes discloses an alarm mode comprises switching off and on, at a predetermined interval (2 sec ring, 4 sec silence), the audio signal output (ring) from the module (See col. 4 lines 20-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tone signal generator disclosed by Kikinis in view of Tsukamoto, Lagoni, and Zato to switch off and on, at a predetermined interval, the audio signal output from the TV module, as taught by Reyes, in order to provide a more efficient means of identifying an incoming call (See col. 4 lines 1-10).

Regarding claim 2, in view of the discussion in claim 1, neither Kikinis nor Lagoni clearly disclose a power switch disposed between the TV module and a power supply unit, the power switch being switched under the control of the MSP (Mobile Station Processor) to turn ON/OFF the TV module.

Tsukamoto further discloses a power switch (switch 6 'TV OFF mode', Fig. 1) disposed between the TV module and the AC power, supply (not show), the power switch being switched under the control of the CPU 23 (MSP) to turn ON/OFF the display 3 (Fig. 9, steps B1, B2, B3, B4 for TV OFF mode, B7 and B8 for ON; Col. 9, lines 59-Col. 10, lines 3 and Col. 12, lines 54-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supply a power switch, as taught by Tsukamoto, so the Kikinis's TV-Phone is able to display message of the incoming call while the system is

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under power saving mode, i.e., standby/sleep mode of powering off the display and the TV mode is OFF but not the main unit.

Regarding claim 3, in view of the discussion in claim 1, neither Kikinis nor Lagoni clearly disclose the a Radio Frequency Switch (RFSW) allowing an antenna to be connected to both the TV module and the Mobile Station RF unit (MRFU) in response to establishment of the TV mode of the Mobile Station processor (MSP) and allowing the antenna to be connected to only the MRFU in response to the establishment of the phone mode of the MSP.

Tsukamoto discloses an antenna 2 receives a TV broadcast Radio wave and a radio wave generated from a radio transmission station of a telephone service (Fig. 1; Col. 3, lines 12-39; Fig. 9 shows an algorithm of how the switch 6 function, i.e., switch 6 on VHF/UHF position, works with CPU 23) in response to the establishment of the TV mode of the CPU 23 (MSP), and allowing the antenna 2 to be connected to only the Pager mode (MRFU) in response to the establishment of the Pager mode only (switch 6 on OFF position) of the CPU 23 (MSP). Thus, Tsukamoto' switch 6 is a RFSW. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis' TV-phone with an RF switch/RFSW connects an antenna to the TV module and the Mobile Station RF unit (MRFU), as taught by Tsukamoto, so that the TV-phone receives both signals simultaneously, TV and phone, and allows user to view TV while the phone receiver works in the background to alert the viewer of an incoming call (Col. 13, lines 7-10).

#### (10) Response to Argument

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Appellant argues with respect to claims 1-3 that Kikinis, Tsukamoto, Lagoni, Porco, Zato, and Reves does not disclose at least a first incoming call alarm mode interrupting a power supply voltage supplied to the TV module and automatically switching from the TV mode to the phone mode (See Brief pages 11-12). However, reading the claims in the broadest sense. Kikinis in view of Tsukamoto, Lagoni, and Porco does meet that limitation in the claims. Kikinis discloses a TV phone that has two systems: a TV mode and a phone mode. Porco also discloses an automobile audio/telephone system that has two systems: an audio system/mode and a phone mode. Porco further discloses that power is interrupted to a secondary accessory (e.g. audio system/TV module) and is automatically switch to the phone mode whenever an incoming call occurs or when a call is being placed (See col. 3 line 44 - col. 5 line 27). Therefore, Porco discloses both interrupting a power supply voltage and automatically switching modes (e.g. from audio system/TV module mode to phone mode or vice versa). Appellant further argues that the systems within Porco are two separate devices. However, Porco does disclose that the two systems are installed in the same automobile and share the same power supply (See Figs. 1 and 3).

Appellant also argues with respect to claims 1-3 that Kikinis, Tsukamoto, Lagoni, Porco, Zato, and Reyes does not disclose a second incoming call alarm mode comprises switching off and on, at a predetermined interval, the audio signal output from the TV module (See Brief pages 12-13). However, reading the claims in the broadest sense, Kikinis in view of Tsukamoto, Lagoni, Porco, Zato, and Reyes does meet that limitation in the claims. Zato discloses a television/phone system that

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switches on/off the audio signal output from the TV module (See Fig. 1; col. 3 lines 16-40, the system provide an audible tone indicating incoming calls). Furthermore, Reyes discloses an alarm mode that switching off and on, at a predetermined interval (2 sec ring, 4 sec silence), the audio signal output (ring) from the module (See col. 4 lines 20-45). Therefore, Kikinis in view of Tsukamoto, Lagoni, Porco, Zato, and Reyes meets the

limitation of a second incoming call alarm mode comprises switching off and on, at a

## (11) Related Proceeding(s) Appendix

predetermined interval, the audio signal output from the TV module.

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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